

CLAIMS

1. A file generation apparatus for generating a file of first data to be recorded on a recording medium, the file generation apparatus comprising:

first generation means for generating second data to be arranged at the beginning of the file;

second generation means for generating third data to be arranged at the end of the file; and

third generation means for generating fourth data which allows the data amount of the first, second, or third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, or the third data.

2. The file generation apparatus according to claim 1,

wherein the first generation means generates the second data, i.e., a header of the file.

3. The file generation apparatus according to claim 1,

wherein the first generation means further comprises format conversion means for converting the first data into a KLV (Key, Length, Value) structure; and

wherein the first generation means generates the second data composed of the file's header, and a key and a length arranged between the header and the first data.

4. The file generation apparatus according to claim 1,

wherein the third generation means generates the fourth data by making an addition to each of $N-1$ portions of the first data toward the beginning out of the first data divided into N portions, where N is an integer, so that the data amount of each of the first data divided into $N-1$ portions becomes an integral multiple of a physical unit area of the recording medium and the overall data amount of the first data becomes an integral multiple of the unit of reading and writing on the recording medium.

5. The file generation apparatus according to claim 1,

wherein the third generation means generates the fourth data for the first data divided into units corresponding to specified reproduction times with video data and audio data for a plurality of channels multiplexed in accordance with the divided units so that the data amount for each of divided units of the first data corresponds to an integral multiple of the unit of reading and writing on the recording medium.

6. The file generation apparatus according to claim 5,

wherein the third generation means generates the fourth data so that the data amount totaling partition data for separating divided portions of the first data from each other, metadata contained in each of divided portions of the first data, and the video data corresponds to an integral multiple of the unit of reading and writing on the recording medium.

7. The file generation apparatus according to claim

5,

wherein the third generation means generates the fourth data so that the data amount of each of divided portions of the audio data contained in each of divided portions of the first data corresponds to an integral fraction of the unit of reading and writing on the recording medium and the overall data amount of the audio data corresponds to an integral multiple of the unit of reading and writing on the recording medium.

8. A method of generating a file of first data recorded on a recording medium, comprising:

a first generation step of generating second data to be arranged at the beginning of the file;

a second generation step of generating third data to be arranged at the end of the file; and

a third generation step of generating fourth data which allows the data amount of the first, second, or third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, or the third data.

9. A program which allows a computer to perform a file generation process of generating a file of first data, the program comprising:

a first generation step of generating second data to be arranged at the beginning of the file;

a second generation step of generating third data to be arranged at the end of the file; and

a third generation step of generating fourth data which

allows the data amount of the first, second, or third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, or the third data.

10. A recording medium to record a file of first data, wherein first additional data is added to record the first data whose data amount corresponds to an integral multiple of a unit of reading or writing to the recording medium so that a boundary of the first data matches a boundary of the unit;

wherein second data is arranged at the beginning of the file and is attached with second additional data to have the data amount corresponding to an integral multiple of the unit so that a boundary of the second data matches a boundary of the unit; and

wherein third data is arranged at the end of the file and is attached with third additional data to have the data amount corresponding to an integral multiple of the unit so that a boundary of the third data matches a boundary of the unit.